Examiner: A. Oltmans
Art Unit: 1742

Serial No.:10/099,769 Docket No. 2156-090A

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REMARKS

Claims 1-2, 5-25, 28-38, and 41-57 are currently pending in this application. By virtue of this amendment claims 1, 5-6, 24, and 28-29 have been amended and claims 3 4, 6, 26-27, 29, and 39-40 have been cancelled. New claims 44-57 have been added. Reconsideration and allowance of the above referenced patent application in view of the amendments made above and the remarks to follow is respectfully requested.

Applicant notes with appreciation the indication by Examiner that claims 15 and 38 stand objected to as being dependent on rejected base claims, but would be allowable if rewritten in independent form. Newly added independent claims 44 and 51 contain the subject matter of claims 15 and 38 rewritten in independent form. As such these claims, and the claims depending from them, are believed to be allowable over the prior art.

Claim Rejections Under 35 U.S.C. §102 and §103

Claims 1-13, 16-17, 19, 21-25, 28-36, 39-40, and 42-43 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Wada et al. 6,193,815 B1 (Wada). In addition, claims 1-14, 16-17, 19-24, 26-37, 39-40, and 42-43 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Dolan 5,449,415 (Dolan).

In response, Applicant has amended independent claims 1 and 24 to specifically require meta-tungstate ions. In addition, Applicant has amended dependent claims 5 and 28 to require the use of ammonium meta-tungstate.

Applicants have surprisingly discovered that ammonium meta-tungstate (NH₄)₆W₁₂O₃₉, or its hydrated form (NH)₄W₁₂O₃₉ ×H₂O are much more stable in solutions than sodium tungstate or potassium tungstate, especially aqueous solutions than are left to stand and age. Applicants have determined that solutions of sodium tungstate or potassium tungstate are much less stable and form a precipitate much more readily than solutions of ammonium meta-tungstate.

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Wada teaches a conversion coating made of four components: phosphate ions, titanium, fluoride, and an accelerator. The source of tungstic acid or tungstate is not important in Wada (col. 5, lines 21-24). Tungstic acid/tungstate is listed as one of several possible accelerators (col. 3, lines 14-33), although Wada suggests that the sodium or potassium salts (i.e., Na₂WO₄ or K₂WO₄) are preferred sources of tungsten ions because of their relatively low cost. In contrast, Applicants have determined that ammonium tungstate produces a much more stable solution than sodium or potassium tungstate and that thus sodium and potassium tungstates are not the preferred source of tungstate ions. Wada does not describe or suggest the use of ammonium meta-tungstate, which has been found by Applicants to produce a much more stable solution than sodium or potassium salts of tungstic acid.

Dolan also makes no mention of meta-tungstate or, more particularly, ammonium tungstate salts, which is required by Applicant's claimed invention. The only tungstate/tungstic acid source specifically mentioned by Dolan is silicotungstic acid (H₈SiW₁₂O₄₃) (column 9, line 17). Therefore Dolan does not anticipate the claims of Applicant's invention because Dolan does not teach or fairly suggest all of the elements of Applicant's claimed invention.

Applicant respectfully submits that none of the prior art, alone or in combination, teach all of the elements of Applicant's claimed invention. Reconsideration and withdrawal of the rejection of claims 1-13, 16-17, 19, 21-25, 28-36, and 42-43 as being anticipated by Wada and the rejection of claims 1-14, 16-17, 19-24, 26-37, and 42-43 as being anticipated by Dolan, is respectfully requested.

Examiner's rejection of claims 39 and 40 as reciting a temperature that does not lend patentability to the claimed composition has been noted. Accordingly, these claims have been canceled.

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Claims 18 and 41 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Dolan. Because, amended claims 1 and 24 are believed to be allowable over the prior art of record, claims 18 and 41 would also be allowable over the prior art of record. Reconsideration and withdrawal of the rejection of claims 18 and 41 as being obvious over Dolan is respectfully requested.

CONCLUSION

Applicants believe that the foregoing is a full and complete response to the Office Action of record. Accordingly, an early and favorable reconsideration of the rejection of the claims is requested. Applicants believe that claims 1-2, 5, 7-25, 28, 30-38, and 41-57 are now in condition for allowance and an indication of allowability and an early Notice of Allowance of all of the claims is respectfully requested.

If Examiner feels that a telephonic interview would be helpful, he is requested to call the undersigned at (203) 575-2648.

Respectfully submitted,

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